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Nuclear criticality safety — Estimation of the number of fissions of a postulated criticality accident

*Sécurité de criticité nucléaire — Évaluation du nombre de fissions en
cas d'un hypothétique accident de criticité*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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The committee responsible for this document is ISO/TC 85, *Nuclear energy, nuclear technologies, and radiological protection*, Subcommittee SC 5, *Nuclear fuel cycle*.

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Introduction

In activities involving fissile materials, the potential for a criticality accident occurrence cannot be totally excluded. Therefore, in order to prepare emergency responses in case of such an occurrence, ISO 27467 specifies areas to be studied ([Annex A](#)) to perform the analysis of potential consequences whenever a credible criticality accident may occur. This International Standard deals with one of these areas and is devoted to the estimate of number of fissions (also commonly named "fission yield") for a postulated criticality accident. This topic is essential because most of the other issues of the criticality accident analysis depend on a suitable estimate of this number of fissions.